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PROSPECTIVE USES OF BACTERIAL WEAPONS IN FUTURE WARS

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The fascist warmongers, preparing at an accelerated tempo for a new, extraordinarily inhuman and ferocious "total" war, are mobilizing every conceivable means for the physical extermination of the civilian population, the victims of their coming aggression. The fascist barbarians are making efforts to employ even a science so humanitarian in essence as bacteriology as a means of annihilating mankind.

The use of pathogenic microbes for military purposes is all the more promising since the propagation of virulent bacterial cultures does not require large plants with extensive equipment, costly raw materials, and complex techniques. It may be conducted in any laboratory, even the most modest, and enormous amounts of infective material may be produced there in complete secrecy. The fact is that employment of pathogenic microorganisms for military objectives may yield significant results under given circumstances. By producing a sudden epidemic in a troop concentration or in defense plants, the capability of the unit or the execution of defense contracts may be markedly reduced at a desired moment and the general course of military action may be affected thereby.

The first efforts to employ pathogenic microorganisms to produce military diversions were made by Germany as long ago as during the World War of 1914-1918.

Thus in 1916 a search of the German Embassy in Bucharest revealed ampoules with live cultures of glanders and anthrax which, according to the instructions attached, were intended for the infection of horses and domestic cattle. During the winter of that same year, according to the British counter-intelligence agent Blair, a German agent brought to Russia from the US cultures of the plague bacillus with which it was proposed to infect the rats of Petrograd and thereby produce an epidemic. In 1917, on the Western Front, the French caught a German agent with a culture of the glanders pathogen. The assignment given this diversionist was to produce a glanders epizootic in the horses of the army and in rear areas. It is common knowledge that German espionage and diversion centers were maintained during 1914 and 1915 in the capitals of neutral nations (Madrid, Washington), and that their responsibilities included the poisoning of bread and the infection of canned beef and horsemeat being transported by Allied vessels from the ports of South and North America.

Cases are also on record where German fliers dropped infected fruits and chocolates over Rumanian towns.

Taken as a whole, this information bears witness to the fact that as long ago as during World War I the German General Staff apparently already possessed an elaborated plan for employment of the bacterial weapon.

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The peace treaty of Versailles and the Geneva Protocol of 1925, signed by representatives of 43 countries, pledging themselves not to employ bacterial weapons in future wars, in no way interfered with the active preparation of the fascist countries for bacteriological warfare.

From time to time the bourgeois press and medical and military literature carry articles and even scientific dissertations testifying to the fact that methods of employing bacterial weapons are being developed and readied in the quiet of the laboratory.

Not long ago the prominent British journalist Steed published an article in the press exposing the agents of the Bureau of Aerial and Chemical Attack of the German War Ministry. In 1932-1933 these agents carried out experiments in the spreading of microbes (at that time of the harmless B. prodigiosus) in the subways of Paris and London and also in various other places and public buildings in Paris. According to Steed these experiments demonstrated satisfactorily the possibility of infecting underground railways and other objectives with pathogenic microbes.

In recent years the press has carried quite a number of articles such as those by Colonel Karyszkowski of Poland, by Ferrati, Rocco, and Morreto of Italy, by Fargot, Lustig, and Voisare, and many others, discussing quite openly the conditions under which pathogenic microorganisms can be used in future wars and the microbes which are to be employed. Most of these writers conclude that a new epoch, characterized by the development not only of military chemistry, but also by the appearance of a new "science" -- military bacteriology -- is opening in the history of war and that in a future war pathogenic bacteria will be capable of providing a very destructive and frightful means of annihilation.

In addition a number of prominent bacteriologists such as Pfeiffer, Bordet, Nicolle, Major Fox, and others hold that the sanitary equipment of modern armies and the sanitary facilities of modern cities, combined with mass immunization and strict bacteriological controls, to a considerable degree are capable of limiting and under certain circumstances of rendering impossible the employment of bacteriological weapons, particularly in view of the danger that the epidemics induced may also spread to the attackers. However, their reasoning is far from convincing.

It must be considered that in wartime circumstances favorable to the development of epidemics appear even in countries that are most advanced with respect to sanitation. The movement of enormous masses of human beings from the rear to the front and vice versa; the packed streams of refugees and war prisoners, and the physical and psychological exhaustion of the population, taken together with the frequent difficulties in food supply, create a favorable soil for clandestine and effective use of bacterial weapons and the wide spread of epidemics once they have begun.

In addition it should be noted that military operations may develop not only in theaters of war within the so-called "civilized" countries but in colonial and semicolonial countries

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in which aggressor armies, highly equipped in terms of sanitation, will oppose native armies with weak sanitary services and centers of population with poor sanitation facilities where bacteriological weapons are capable of more or less extensive employment.

Finally the most recent trials of Trotskiyite and Bukharinite diversionists proved that these degenerates, on the orders of their employers, the fascist intelligence services, had not only disseminated epizootics among domestic animals but had prepared to infect with pathogenic microbes railroad cars which were to carry Red Army troops. These trials constitute the best possible refutation of the various "theories" as to the impossibility of employing bacteriological weapons.

In giving consideration to the real threat presented by the possible use of pathogenic microbes as a means of aggression, it is necessary to have an understanding of the concrete forms in which they may find military use; one must be aware of the possibility of surprise in this field.

Clearly, not all pathogenic microorganisms are capable of serving effectively to defeat an enemy army. "Military infections" include only those diseases whose pathogens are highly viable in the external environment, have high virulence, and show a high index of contagion, or in other words, are capable easily and rapidly of infecting the largest possible number of persons or animals and of producing high mortality.

The majority of writers on bacteriological warfare grant, although with certain qualifications, that the pathogens of typhoid and the paratyphoids, dysentery, cholera, plague, glanders, anthrax, Malta fever, grippe, botulism, and wound infections are suited to military uses. In addition it would appear that both a variety of methods and the techniques of disseminating these epidemics have already been worked out.

Fargot, Ferrati, and others believe it possible to disseminate epidemic diseases as follows. (1) Bacteriological fogs (nuages microbiens), on which professor Trilly of the Pasteur Institute of Paris has done a good deal of work, may be employed. The inhalation of microorganisms suspended in the air is capable of inducing mass infection with the grippe, pulmonary plague, pneumonia, and other infections of the upper respiratory tract. (2) Dissemination may be accomplished by dropping bacterial bombs with special spraying equipment, glass flasks, and ampoules with living microorganisms or their toxins, designed to infect water supply systems, the soil, feed stores, grain, etc. This apparently permits dissemination of intestinal epidemics among human beings and epizootics of anthrax and glanders among horses and other domestic animals. (3) There is the release of infected animals (plague-carrying rats, for example). (4) "Abandoned" food supplies, particularly of canned goods, may be infected with the botulism pathogen.

Much attention is also being given to methods of disseminating epidemics in the rear. Thus Colonel Karyszkowski of Poland ascribes particular significance to the activities of groups of diversionists in the enemy's rear. In his opinion they can be supplied with bacteriological cultures from small,

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readily camouflaged, conspiratorial laboratories in the enemy's territory.

All these data provide indubitable testimony to the real danger that bacterial weapons will be employed in future war to one degree or another.

Let us not exaggerate this danger, since "bacteriological weapons cannot serve as so regular a tool of war as poison gas, but must nevertheless not be excluded from our defense plans" (Rochet).

Thus the military and civilian medical and sanitary services will in future wars be faced with new tasks: always to be prepared to protect the army and the civilian population of the USSR against possible enemy efforts to mount a bacteriological attack.

The major measures of bacteriological defense in future wars will be the following.

(1) Constant improvement in the sanitation culture and discipline of the army and of the entire civilian population of the USSR.

(2) Efficiency in the work of stationary and traveling bacteriological laboratories with the responsibility of checking most carefully sources of water supply, food products, animal feed, etc.

(3) Prompt discovery and elimination of centers of bacterial infection.

(4) Wide prophylactic vaccination against the infections most dangerous in the military sense.

Finally the revolutionary vigilance of the entire Soviet people is a most important requirement for successfully combatting the attack being prepared by the fascist barbarians.

The higher the sanitary standards of army and population, the better organized the medical and sanitary services, and the more vigilant the entire people against all kinds of spies, diversionists, and Trotskiyite-Bukharinite agents, the lower will be the losses to bacteriological attack. "Our entire people must be maintained in a state of mobilized preparedness in the face of the danger of military attack, so that no 'accidents' or tricks of the Soviet Union's external enemies can catch us unawares" (Stalin).

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